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(04-0004 US04)

**REMARKS**

Claims 75-94 have been replaced with new claims 95-120 in order to more particularly recite what the Applicants regard as their invention. No new matter has been added.

Former claims 75-94 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Sogawa et al. USP 4,662,383 ("Sogawa") in view of Abele et al. USP 5,103,804 ("Abele"). Applicants respectfully traverse, and submit that such rejections could not be properly sustained against the new claims 95-120.

In order to establish a case of obviousness under 35 U.S.C. § 103 by combining references, there must be some suggestion or motivation provided, either in the references themselves or in the generally available knowledge, to combine the reference teachings, as well as some reasonable expectation of success in so doing. M.P.E.P. 706.02(j). According to the office action, "a modification of Sogawa et al to provide device through an endoscope" is being proposed by the Examiner. However, Applicants respectfully submit that it is in fact a modification of Abele that is proposed, i.e., in which the "hemostatic balloon probe 34" positioned in the endoscope 150 of Abele is replaced with the endotract antenna device 1 of Sogawa, in order to support the prior claim rejections. In other words, the primary reference that is being "modified" is Abele, not Sogawa. However, there is no motivation presented by the Examiner as to why the teaching of Abele should be so-modified, absent hindsight based on Applicants' present disclosure.

The hemostatic balloon probe 34 in Abele employs a resistive heating device (electrical contacts 22 and 24) to heat liquid contained within the interior of the balloon 8. (See, e.g., col. 1, lines 48-66; col. 4, line 17 to col. 5, line 10). However, the balloon chamber and resistive

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heating contacts of Abele “are cooperatively constructed and arranged to cause the current to be substantially confined to liquid within the chamber.” (Col. 1, lines 64-66). See also, col. 5, lines 1-10, which state:

In all events the shape of the balloon and the construction and spacing of the electrical contacts are preselected *so that the electrical current is substantially confined to the interior of the balloon*. The fluid 36 within balloon 8 may be black or dark, so that in addition to the fluid being heated by resistive conductive of RF electric current, the fluid thermally absorbs the RF radiation from the electrodes. A black or dark fluid 36 can therefore heat up more efficiently than a clear fluid or a white fluid.

Thus, the heating device taught in Abele is, in effect, a “hot water bottle” that is purposefully designed to avoid delivering any substantive electrical energy to body tissue, relying instead on thermal conduction from the heated fluid in the balloon to heat the tissue. Further, because the Abele device requires that the fluid be heated, there is no teaching or suggestion as to how to provide the (at least one) additional lumen needed for circulating cooling fluid through the balloon chamber, as is required to operate the edotract antenna device of Sowaga. In fact, there is no teaching or suggestion in either reference, or supplied independently in the Office Action, as to how Abele device can be successfully modified so that the heating balloon of Abele is replaced by the cooling-circulation balloon of Sowaga, or, conversely, as to how the Sowaga “microwave-antenna-in-a-cooling-balloon” device could be operated successfully through the channel of the endoscope of Abele, let alone why one of ordinary skill in the art would be motivated to do so. Applicants respectfully submit that the only such motivation provided is that of applicants own disclosure.

Furthermore, even if the reference teachings could somehow be properly combined without the improper use of hindsight, their combination still does not teach or suggest the

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subject matter of new claims 102-103, 108-109 and 112-120, which recite that the antenna (claims 102-103) or electrically conductive element(s) (claims 108-109, 112-120) are located on an exterior surface of the expandable portion (102-103, 108-109) or expandable structure (claims 112-120). Both the microwave linear dipole antenna 5 of the Sowaga device and the electrical contacts 22 and 24 of the Abele device are purposely located in an interior region of the respective balloons. As pointed out above, Abele specifically teaches that conduction of electrical energy outside of the balloon is to be avoided. And the whole point of the Sowaga disclosure is to incorporate the microwave antenna in the balloon. See, e.g., the Background and Summary of Invention sections of Sowaga; also col. 4, lines 4-17.

#### CONCLUSION

In view of the foregoing, it is respectfully submitted that new claims 95-120 are allowable over the previously cited Sowaga and Abele references. Applicants ask the Examiner review the references cited in the accompanying Information Disclosure Statement, which include those references cited during prosecution of the respective parent applications to the present application, now U.S. Patent Nos. 6,073,052, 6,321,121 and 6,604,004. If the Examiner has any questions or comments regarding this amendment, please contact the undersigned representative.

Respectfully submitted,  
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